US005881275A

United States Patent [19]

Peleg et al.

[11] Patent Number: 5,881,275

[45] Date of Patent: Mar. 9, 1999

[54] **METHOD FOR UNPACKING A PLURALITY OF PACKED DATA INTO A RESULT PACKED DATA**

[75] Inventors: **Alexander Peleg**, Carmelia; **Yaakov Yaari**, Haifa, both of Israel; **Millind Mittal**, South San Francisco; **Larry M. Mennemeier**, Boulder Creek, both of Calif.; **Benny Eitan**, Haifa, Israel

[73] Assignee: **Intel Corporation**, Santa Clara, Calif.

[21] Appl. No.: **799,468**

[22] Filed: **Feb. 13, 1997**

Related U.S. Application Data

[63] Continuation of Ser. No. 626,698, Apr. 2, 1996, abandoned, which is a continuation of Ser. No. 349,047, Dec. 2, 1994, abandoned.

[51] **Int. Cl.**[6] **G06F 9/30**

[52] **U.S. Cl.** **395/564**; 395/376; 395/562; 395/800.32; 364/715.011

[58] **Field of Search** 395/376, 562, 395/564, 800.32; 364/715.011

[56] **References Cited**

U.S. PATENT DOCUMENTS

5,268,995	12/1993	Diefendorff et al.	345/422
5,327,543	7/1994	Miura et al.	395/565
5,390,135	2/1995	Lee et al.	364/749
5,408,670	4/1995	Davies	395/800.16
5,423,010	6/1995	Mizkami	341/60
5,499,376	3/1996	Kay et al.	395/800.3

OTHER PUBLICATIONS

UltraSparc, Sparc Technology Business, Sep. 1994 pp. 1–8.

MC88110 User's Manual, Motorola, 1991, p. 5:11–12.

Primary Examiner—Kenneth S. Kim

Attorney, Agent, or Firm—Blakely, Sokoloff, Taylor & Zafman

[57] **ABSTRACT**

A processor. The processor includes a first register for storing a first packed data, a decoder, and a functional unit. The decoder has a control signal input. The control signal input is for receiving a first control signal and a second control signal. The first control signal is for indicating a pack operation. The second control signal is for indicating an unpack operation. The functional unit is coupled to the decoder and the register. The functional unit is for performing the pack operation and the unpack operation using the first packed data. The processor also supports a move operation.

10 Claims, 17 Drawing Sheets